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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,449

06/27/2003

Rafael Carbunaru

585-0031US4/05-00435-04

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07/15/2009

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EXAMINER

KAHELIN, MICHAEL WILLIAM

ART UNIT

PAPER NUMBER

3762

MAIL DATE

DELIVERY MODE

07/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/609,449	Applicant(s) CARBUNARU ET AL.	
	Examiner MICHAEL KAHRELIN	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-21 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-21 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-6, 8-21, and 44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although the Examiner was able to find support for a specific charging frequency of 127 kHz and a specific “booster” frequency of 1.2 MHz, the Examiner was unable to find support for larger range of frequencies, as claimed (i.e., any and all frequencies which are different from each other). This single embodiment does not appear to meet the “representative number of species” test of MPEP 2163(II)(A)(3)(a)(ii) to provide written description support for the broad genus of a “second frequency different from the first frequency.”

3. Claims 1-6, 8-21, and 44 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the charging frequency of 127 kHz and a “booster” frequency of 1.2 MH, does not reasonably provide enablement for any and all charging and booster frequencies which are different from each other. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with

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these claims. There is no indication that any and all possible combinations of charging and booster frequencies that are different from each other would be capable of charging a battery of an implantable device or recharge a battery depleted to zero volts.

Response to Arguments

4. Applicant's arguments filed 5/18/2009 have been fully considered but they are not persuasive. Applicant argued that the exemplary frequencies of 127 kHz and 1.2 MHz provided in the originally filed disclosure (e.g., paragraph 0067) provide adequate 112, 1st paragraph support for the claimed "different frequencies" because the relevant field is a predictable art. Applicant further argued that an artisan of ordinary skill would recognize that the specificity of 127 kHz and 1.2 MHz is unimportant and would understand how to tune the receiver to any different frequencies he may like. Although the Examiner does not refute that an artisan of ordinary skill would be capable of adjusting the excitation frequency of a receiving coil, the Examiner respectfully disagrees that written description support and enablement exists for the combination of *any* two different frequencies because of other factors such as implantation variability and complexity of rechargeable batteries (described by Applicant in paragraph 0009 of the originally-filed disclosure) and the attainable frequency specificity of the means for switching between the "normal mode" and ZVR mode. Although Applicant argued that this is a predictable art, paragraph 0009 seems to indicate the converse; namely that the selection of frequencies is not merely arbitrary, but the frequencies are specifically chosen for the complexity and variability of the application. It would require undue experimentation to determine effective combinations from the infinite number of possible

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frequencies. For instance, the exemplary 127 kHz "normal mode" and 1.2 MHz ZVR mode are about an order of magnitude different from each other. Can the opposite frequencies be used to recharge a battery depleted to zero volts and implanted deeply within a patient (i.e., a 1.2 MHz "normal mode frequency" and a 127 kHz ZVR mode)? Can the implantable device discern frequencies that are less than an order of magnitude different from each other (e.g., 127 kHz and 128 kHz, or 127 kHz and 127.00001 kHz)? These combinations currently fall squarely within the scope of the rejected claims. The Examiner's position is that an artisan of ordinary skill would not recognize that the single disclosed species provides support for the genus of any "different frequenc[ies]" because it is not unimportant which frequencies are used, and that it would require undue experimentation to find other combinations of operable frequencies (if they exist) because the potential combinations are infinite. Accordingly, the written description and enablement rejections under 35 USC 112(1) stand.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL KAHELIN whose telephone number is (571)272-8688. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Kahelin/
Examiner, Art Unit 3762

/Angela D Sykes/
Supervisory Patent Examiner, Art Unit 3762